UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/982,269	10/17/2001	Benoit Mory	PHFR 000110	7787

24737 7590 07/25/2005

PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER	
STEVENS, ROBERT	

ART UNIT	PAPER NUMBER
2176	

DATE MAILED: 07/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/982,269	MORY ET AL.	
	Examiner	Art Unit	
	Robert M. Stevens	2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 April 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 April 2005* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to communications: amendment filed 4/29/2005 to the original application filed 10/17/2001 by Mory et al. entitled "Binary Format for MPEG-7 Instances".

2. The Office maintains the objections to the specification (i.e., the Abstract in particular) as raised in the First Action on the Merits (FAOM), in view of the amendment.

3. The Office maintains the objections to the drawings raised in the FAOM, in view of the amendment.

4. The Office withdraws the FAOM rejections of claims 1-10 under 35 USC 101, in view of the amendment.

5. The Office maintains the FAOM rejections of claims 9-10 under 35 USC 101, in view of the amendment.

6. The Office substantially maintains (or adds, as appropriate) the FAOM rejections of claims 9-10 under 35 USC 102(b) as being anticipated by Auffret, in view of the amendment, with modifications to accommodate any corresponding claim variance between the FAOM and amendment.

7. The Office substantially maintains (or adds, as appropriate) the FAOM rejections of claims 1, 3 and 5-8 under 35 USC 103(a) as being unpatentable over Auffret in view of North, in view of the amendment, with modifications to accommodate any corresponding claim variance between the FAOM and amendment.

8. The Office substantially maintains (or adds, as appropriate) the FAOM rejections of claims 2 and 4 under 35 USC 103(a) as being unpatentable over Auffret in view of North and further in view of Hu, in view of the amendment, with modifications to accommodate any corresponding claim variance between the FAOM and amendment.

9. Claims 1-10 are pending. Claims 1, 3, 5-6 and 5-10 are independent.

10. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in the European Patent Office (EPO) on Oct. 17, 2000. It is noted, however, that applicant has not filed a certified copy of the EP 00402876.7 application as required by 35 U.S.C. 119(b).

Drawings

11. Regarding Fig. 1, 5 and 6: No reference characters (refer to 37 CFR 1.84(p)) appear in these drawings and the associated specification. Reference characters are required to understand the Application subject matter.

12. Regarding Fig. 4, the steps discussed in the specification do not appear in the figure.

13. Figure 2 contains references to steps 2-1 thru 2-4. Reference characters are not to be encircled, as per 37 CFR 1.84(p)(1).

14. Regarding figure 3, the empty boxes associated with the Fig. 3 steps require suitable legends, as per 37 CFR 1.84(o). Additionally, the underlining of reference characters is generally associated with a cross section (see 37 CFR 1.84(p)(3)), which does not appear to be Applicant's intent for Fig. 3.

15. Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

16. The abstract of the disclosure is objected to because it merely reiterates claim language and contains "legalistic language", such as "comprising. Correction is required. See MPEP § 608.01(b).

17. The disclosure is difficult to understand because multiple terms describe the same element in the figures (e.g., XML instance, XML hierarchy, hierarchical XML structure, XML instance XML-D, instance XML-C). This is the main reason why reference characters are required for the drawings (and the associated description within the specification). Proper use of reference characters ensures consistency in identification of drawing elements.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

18. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

19. **Claims 9-10 are rejected under 35 U.S.C. 101** for the following reasons:

Regarding independent claim 9, a "signal" is not tangibly embodied and its usefulness is unclear. Since this claim encompasses an intangible embodiment, it is not statutory under 35 USC 101.

Regarding independent claim 10, the claim is to a "decoder", which is a software artifact that is not tangibly embodied. There is no evidence within the specification that would limit a "decoder" to a hardware embodiment.

The language of this claim merely describes a computer program per se. As such, this raises a question as to whether the claim is directed merely to an abstract idea that is not tied to a technological art, environment or machine, which would result in a practical application producing a concrete, useful and tangible result to form the basis of statutory subject matter under 35 USC 101.

One technique for satisfying the requirements of 35 USC 101 is to claim code residing in memory (i.e., hardware), wherein that code produces a tangible result.

Claim Rejections - 35 USC § 102

20. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

21. **Claims 9 and 10 are rejected under 35 U.S.C. 102(b)** as being anticipated by Gwendal Auffret, et al., (paper entitled: "Audiovisual-based Hypermedia Authoring: Using Structured Representations for Efficient Access to AV Documents", Hypertext '99, Darmstadt, Germany, Feb. 1999, hereafter referred to as "Auffret").

Regarding independent claim 9, Auffret discloses:

A signal for transmission over a transmission network that comprises an encoder and/or a decoder (p. 175 "Structure encoding using XML") *having a memory storing at least one table derived from a markup language schema* (Fig. 11), *said markup language schema defining a hierarchical structure of description elements, said hierarchical structure comprising hierarchical levels, parent description elements and child description elements* (p. 174 Fig. 7, and first paragraph under "Temporal Model" re: "graph containing description object"), *said table containing identification information for solely identifying each description element in a hierarchical level* (p. 174 Fig. 7, and first paragraph under "Temporal Model" re: "graph containing description object"), *and structural information for retrieving any child description element from its parent description element* (p. 174 Fig. 7, and first paragraph under "Temporal Model" re: "reference links [structural information]"), *wherein said signal includes at least one fragment representing a content of an encoded description element, and a sequence of identification information being associated in said table to said encoded description element and at least one parent description element* (p. 174 "A segment" section, which also references Fig. 4, showing how sequenced segments are used in the building of a document, and p. 173 Fig. 4, and p. 173 Fig. 4 re: the last paragraph before the section entitled "Relating Descriptors to an Ontology" and discussing tree building), *wherein the sequence of identification information is usable by the decoder as a key to decode the encoded description element* (p. 176, esp. Fig. 11 disclosing index, or keys, to decode and reference the appropriate description elements).

Regarding independent claim 10, Auffret discloses:

A decoder having a table (Fig. 11) *for updating a hierarchical memory representation of an instance of markup language schema* (p. 175 "Structure Encoding using XML"),

said markup language schema defining a hierarchical structure of description elements, said hierarchical structure comprising hierarchical levels, parent description

elements and child description elements, characterized in that the table is derived from said markup language schema (p. 174 Fig. 7, and p. 173 first sentence under heading "Overview of AEDI"),

and the table contains identification information for solely identifying each description element in a hierarchical level (p. 174, Fig. 7 and first paragraph under heading "Temporal Model", re: "graph containing description objects"),

and structural information for retrieving any child description element from its parent description element. (p. 174, Fig. 7 and first paragraph under heading "Temporal Model", re: "reference links [i.e., structural information]")

Claim Rejections - 35 USC § 103

22. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

23. **Claims 1, 3 and 5-8 are rejected under 35 U.S.C. 103(a)** as being unpatentable over Gwendal Auffret, et al., (paper entitled: "Audiovisual-based Hypermedia Authoring: Using Structured Representations for Efficient Access to AV Documents", Hypertext '99, Darmstadt, Germany, Feb. 1999, hereafter referred to as "Auffret") in view of Simon North, et al., (SAMS Teach Yourself XML in 21 Days, Sam's Publishing, Indianapolis, IN, (c) 1999, hereafter referred to as "North").

Regarding independent method claim 1, Auffret discloses:

A encoding method for encoding a description element of an instance of markup language schema defining a hierarchical structure of description

elements (p. 175 "Structure encoding using XML"), *said hierarchical structure comprising hierarchical levels, parent description elements and child description elements* (p. 174, Fig. 7 and 1st paragraph under heading "Temporal Model" re: "graph containing description objects"), *said description element to be encoded comprising a content* (p. 174, Fig. 7 and 1st paragraph under heading "Temporal Model" re: "reference links [structural information]"), *wherein the method includes:*

providing a table derived from said schema (Fig. 11), *said table containing identification information for solely identifying each description element in a hierarchical level, and structural information for retrieving any child description element from its parent description element* (p. 174, Fig. 7 and 1st paragraph under heading "Temporal Model" re: "graph containing description objects"),

... from said table; (p. 174, Fig. 7 and 1st paragraph under heading "Temporal Model" re: "graph containing description objects")

encoding said description element to be encoded as a fragment comprising said content and a sequence of the retrieved identification information. content (p. 174, Fig. 7 and 1st paragraph under heading "Temporal Model" re: "reference links [structural information]")

However, Auffret does not explicitly disclose:

scanning a hierarchical memory representation of said instance from parent description elements to child description elements until reaching the description element to be encoded, and retrieving the identification information of each scanned description element ... ,

North, though, discloses:

scanning a hierarchical memory representation of said instance from parent description elements to child description elements until reaching the description element to be encoded, and retrieving the identification information of each scanned description element ... , (p. 300, Figures 14.2 and 14.3 and description between and below those figures)

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of North for the benefit of Auffret, because to do so would allow a programmer to traverse an XML document in a hierarchical fashion as taught by North in the 1st

sentence under "OUTPUT Listing 14.7" on page 299. These references were all applicable to the same field of endeavor, i.e., hierarchical processing of documents.

Regarding independent method claim 3, Auffret discloses:

A decoding method for decoding a fragment comprising a content and a sequence of identification information, wherein the method includes:

using at least one table derived from markup language schema (Fig. 11), *said schema defining a hierarchical structure of description elements comprising hierarchical levels, parent description elements and child description elements* (p. 174, Fig. 7 and 1st paragraph under heading "Temporal Model" re: "graph containing description objects"), *said table containing identification information for solely identifying each description element in a hierarchical level* (p. 174, Fig. 7 and 1st paragraph under heading "Temporal Model" re: "graph containing description objects"), *and structural information for retrieving any child description element from its parent description element* (p. 174, Fig. 7 and 1st paragraph under heading "Temporal Model" re: "reference links [structural information]"),

at each step searching in said table for the description element associated to the current identification information (p. 174, Fig. 9 and subsequent description under heading "Temporal Model" re: "reference links [structural information]") *and adding said description element to a hierarchical memory representation of an instance of said schema if not already contained in said hierarchical memory representation* (p. 173, Fig. 4, and p. 175 last paragraph before the italicized heading "A *segment*"), *and*

adding said content to the description element of said hierarchical memory representation that is associated to the last identification information of said sequence (p. 175, last paragraph before the section entitled "Relating Descriptors to an Ontology", re: tree building).

However, Auffret does not explicitly disclose:

scanning said sequence identification information by identification information,

North, though, discloses:

scanning said sequence identification information by identification information, (p. 300, Figures 14.2 and 14.3 and the description between and below those figures)

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of North for the benefit of Auffret, because to do so would allow a programmer to traverse an XML document in a hierarchical fashion as taught by North in the 1st sentence under "OUTPUT Listing 14.7" on page 299. These references were all applicable to the same field of endeavor, i.e., hierarchical processing of documents.

Regarding independent claim 5, Auffret discloses:

An encoder for encoding a description element of an instance of a markup language schema defining a hierarchical structure of description elements (p. 175 "Structure encoding using XML"), *said hierarchical structure comprising hierarchical levels, parent description elements and child description elements* (p. 174 Fig. 7, and paragraph under "Temporal Model" re: "graph containing description objects"), *said description element to be encoded comprising a content* (p. 175 "Structure encoding using XML"), *characterized in that the encoder comprises:*

a memory for storing at least one table derived from said schema, said table containing identification information for solely identifying each description element in a hierarchical level (p. 174 Fig. 7, and paragraph under "Temporal Model" re: "graph containing description objects"), *and structural information for retrieving any child description element from its parent description element* (p. 174 Fig. 7, and paragraph under "Temporal Model" re: "reference links [i.e., structural information]"), *and*

computing means ...

and for encoding said description element to be encoded as a fragment comprising said content and a sequence of the retrieved identification information (p. 174 "A *segment*" section, which also references Fig. 4, showing how sequenced segments are used in the building of a document).

However, Auffret does not explicitly disclose:

> *computing means for scanning said instance from parent description elements to child description elements until reaching the description element to be encoded, and retrieving the identification information of each scanned description element,*

North, though, discloses:

> *computing means for scanning said instance from parent description elements to child description elements until reaching the description element to be encoded, and retrieving the identification information of each scanned description element,* (p. 300, Figures 14.2 and 14.3 and the description between and below those figures)

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of North for the benefit of Auffret, because to do so would allow a programmer to traverse an XML document in a hierarchical fashion as taught by North in the 1st sentence under "OUTPUT Listing 14.7" on page 299. These references were all applicable to the same field of endeavor, i.e., hierarchical processing of documents.

Regarding independent claim 6, Auffret discloses:

A decoder for decoding a fragment comprising a content and a sequence of identification information, characterized in that the decoder comprises:

a memory for storing at least one table derived from markup language schema (Fig. 11), *said schema defining a hierarchical structure of description elements comprising hierarchical levels, parent description elements and child description elements, said table containing identification information for solely identifying each description element in a hierarchical level* (p. 174 Fig. 7, and paragraph under "Temporal Model" re: "graph containing description objects"), *and structural information for retrieving any child description element from its parent description element* (p. 174 Fig. 7, and paragraph under "Temporal Model" re: "reference links [structural information]"),

computing means for:

... , at each step searching in said table for the description element associated to the current identification information (p. 174 Fig. 9, and subsequent description under "A

segment") *and adding said description element to a hierarchical memory representation of an instance of said schema if not already contained in said hierarchical memory representation* (Fig. 4), *and*

adding said content to the description element of said hierarchical memory representation that is associated to the last identification information of said sequence (p. 173 Fig. 4, and p. 175 last paragraph before section entitled "Relating Descriptors to an Ontology" re: tree building).

However, Auffret does not explicitly disclose:

> *scanning said sequence identification information by identification information,*

North, though, discloses:

> *scanning said sequence identification information by identification information,* (p. 300, Figures 14.2 and 14.3 and the description between and below those figures)

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of North for the benefit of Auffret, because to do so would allow a programmer to traverse an XML document in a hierarchical fashion as taught by North in the 1st sentence under "OUTPUT Listing 14.7" on page 299. These references were all applicable to the same field of endeavor, i.e., hierarchical processing of documents.

Regarding independent system claim 7:

> *A transmission system comprising an encoder as claimed in claim 5.*

Claim 7 is substantially similar to claim 5, and therefore likewise rejected.

Regarding independent system claim 8:

A transmission system comprising an decoder as claimed in claim 6.

Claim 8 is substantially similar to claim 6, and therefore likewise rejected.

24. **Claims 2 and 4 are rejected under 35 U.S.C. 103(a)** as being unpatentable over Gwendal Auffret, et al., (paper entitled: "Audiovisual-based Hypermedia Authoring: Using Structured Representations for Efficient Access to AV Documents", Hypertext '99, Darmstadt, Germany, Feb. 1999, hereafter referred to as "Auffret") in view of Simon North, et al., (SAMS Teach Yourself XML in 21 Days, Sam's Publishing, Indianapolis, IN, (c) 1999, hereafter referred to as "North") and further in view of Michael J. Hu, et al., (paper entitled: "Multimedia description Framework (MDF) for Content Description of Audio/Video Documents", downloaded from: arxiv.org/pdf/cs.DL/9902016.pdf, dated: Jun. 2, 1999, hereafter referred to as "Hu").

Regarding claim 2, which is dependent upon claim 1, the limitations of claim 1 have been previously addressed.

Auffret does not explicitly disclose:

> *characterized in that when a description element is defined in the schema as possibly having multiple occurrences, said table further comprises for said description element an occurrence information for indicating that said description element may have multiple occurrences in an instance, and when an occurrence having a given rank is scanned during the encoding, the corresponding retrieved identification information is indexed with said rank.*

Hu, though, discloses:

> *characterized in that when a description element is defined in the schema as possibly having multiple occurrences, said table further comprises for said description element an occurrence information for indicating that said description element may have multiple occurrences in an instance* (page 11, section 3.5, second paragraph: "Figures [sic] 7 show a .... a list [i.e., multiple occurrences] of multimedia documents ... in the content description"), *and when an occurrence having a given rank is scanned during the encoding, the corresponding retrieved identification information is indexed with said rank.* (page 11, section 3.4, second paragraph: "The target of indexing module is to automatically formulate indices of key descriptors")

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Hu for the benefit of Auffret in view of North, because to do so would allow a user to efficiently retrieve multimedia data or documents as taught by Hu in the first paragraph of page 11, section 3.5. These references were all applicable to the same field of endeavor, i.e., hierarchical processing of documents.

Regarding claim 4, which is dependent upon claim 3, the limitations of claim 1 have been previously addressed.

Auffret does not explicitly disclose:

> *characterized in that when a description element is defined in the schema as possibly having multiple occurrences, said table further comprises for said description element an occurrence information for indicating that said description element may have multiple occurrences in an instance, and when said sequence comprises an indexed identification information, said index is interpreted as an occurrence rank for the associated description element, same description element(s) of lower rank(s) being added to said hierarchical memory representation if not already contained in said hierarchical memory representation.*

Hu, though, discloses:

> *characterized in that when a description element is defined in the schema as possibly having multiple occurrences, said table further comprises for said description element an occurrence information for indicating that said description element may have multiple occurrences in an instance* (page 11, section 3.5, second paragraph: "Figures [sic] 7 show a .... a list [i.e., multiple occurrences] of multimedia documents ... in the content description"), *and when said sequence comprises an indexed identification information, said index is interpreted as an occurrence rank for the associated description element, same description element(s) of lower rank(s) being added to said hierarchical memory representation if not already contained in said hierarchical memory representation.* (page 11, section 3.4, second paragraph: "The target of indexing module is to automatically formulate indices of key descriptors" and p. 70 Fig. 3)

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Hu for the benefit of Auffret in view of North, because to do so would allow a user to efficiently retrieve multimedia data or documents as taught by Hu in the first paragraph of page 11, section 3.5. These references were all applicable to the same field of endeavor, i.e., hierarchical processing of documents.

Response to Arguments

25. Applicant's arguments have been fully considered but they are not persuasive.

The maintained FAOM objections to the specification (i.e., the Abstract in particular) were noted above, including that the Applicant merely reiterates a version (previous or current) of the claims. The Abstract is not to contain claim or legalistic language, such as "comprising". Additionally, the purpose of an Abstract is to summarize a work, so that a reader may quickly determine whether it is necessary to read further. The purpose of the claims is to establish metes

and bounds, and often contains language which requires a reader to carefully read the entire specification in order to determine Applicant-ascribed meanings to claim language.

The FAOM objections to the drawings were maintained because Applicant merely picked and chose what Applicant wanted to rectify. Fig. 1 still contains no reference numbers. Fig. 2 still contains encircled reference numbers. Fig. 3 still lack suitable legends for empty boxes and still underlines reference characters. Fig. 4 is described by Applicant as not having steps, yet the specification at page 15 lines 4-26 clearly enumerates steps 4-1 through 4-8. Fig. 5 is still merely arrays of cells containing 1/0 values, which are grouped, with some of the groups having some sort of reference characters (0,1,70,1) and other groups (groups being indicated by braces) not having any reference characters.

Regarding the FAOM rejections of claims 9-10 under 35 USC 101: Claim 9 is directed to an intangible artifact, namely a signal. Claim 10 has been amended to claim a decoder, but there is no evidence with the specification that a decoder is limited to a hardware embodiment. As such claim 10 encompasses a purely software embodiment (i.e., software per se). Thus neither claim 9 nor claim 10 are statutory under 35 USC 101.

Regarding the FAOM rejections of claims 9-10 under 35 USC 102(b) as being anticipated by Auffret, Applicant argues on page 13 that the cited references do not teach the claimed limitations. In particular, Applicant argues that Auffret does not teach the use of a table data structure and that the Applicant's subject matter is therefore rendered patentable.

The Office first of all finds it incredulous that Applicant feels that the mere organization of data renders Applicant's subject matter patentable. The Office also points out the Auffret reference teaches the use of tables in Fig. 11, which shows a database including an index referencing tables of description elements, and Fig. 10 further includes an element labeled as "<projtuple>" (short for projection tuple, as one skilled in the art would understand). This clearly illustrates the inherent use of tables by Auffret. See also the enclosed Microsoft dictionary definition of "tuple" found on p. 532 (Microsoft Computer Dictionary, 5th Edition, Microsoft Press, Redmond WA, © 2002, pp. 252, 510 and 532). The Office therefore substantially maintains (or adds, as appropriate) the FAOM rejections of claims 9-10 under 35 USC 102(b) as being anticipated by Auffret, in view of the amendment, with modifications to accommodate any corresponding claim variance between the FAOM and amendment.

Regarding the FAOM rejections of claims claims 1, 3 and 5-8 under 35 USC 103(a) as being unpatentable over Auffret in view of North, Applicant argues on page 17 that the cited references do not teach the claimed limitations.

The Office first of all finds it incredulous that Applicant feels that the mere organization of data renders Applicant's subject matter patentable. The Office also points out the Auffret reference teaches the use of tables in Fig. 11, which shows a database including an index referencing tables of description elements, and Fig. 10 further includes an element labeled as "<projtuple>" (short for projection tuple, as one skilled in the art would understand). This clearly illustrates the inherent use of tables by Auffret. See also the enclosed Microsoft dictionary definition of "tuple" found on p. 532 (Microsoft Computer Dictionary, 5th Edition,

Microsoft Press, Redmond WA, © 2002, pp. 252, 510 and 532). Additionally, the choice of data structures employed within a project, such as Applicant's subject matter, is merely a matter of obvious design choice. Further, for the explicit use of the term "encoding", see p. 175, Fig. 10 and Fig. 11. It is also inherent/implied in XML processing that nodes/fragments/whatever_data_characterization_used must be sequenced to be properly reconstructed (especially in an environment such AV processing).

Furthermore, Applicant asserts that North doesn't teach scanning hierarchical memory representation .... Not only is North directed to XML processing, which inherently/implicitly involves the hierarchical representation of XML documents. Additionally, it is noted that the Auffret could also be fairly interpreted as teaching the hierarchical processing/scanning as disclosed by at least Fig. 7 and 11. The Office therefore substantially maintains (or adds, as appropriate) the FAOM rejections of claims 1, 3 and 5-8 under 35 USC 103(a) as being unpatentable over Auffret in view of North, in view of the amendment, with modifications to accommodate any corresponding claim variance between the FAOM and amendment.

Regarding the FAOM rejections of claims 2 and 4 under 35 USC 103(a) as being unpatentable over Auffret in view of North and further in view of Hu, Applicant apparently is relying on Applicant's arguments vice the Auffret and North references. No argument appears to be directed to the Hu reference.

The Office has addressed previously Applicant's arguments vice Auffret and North. The Office therefore substantially maintains (or adds, as appropriate) the FAOM rejections of claims 2 and 4 under 35 USC 103(a) as being unpatentable over Auffret in view of North and further in

view of Hu, in view of the amendment, with modifications to accommodate any corresponding claim variance between the FAOM and amendment.

Conclusion

26. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Non-patent Literature

Microsoft Computer Dictionary, 5th Edition, Microsoft Press, Redmond WA, © 2002, pp. 252, 510 and 532.

US Patent Application Publications

US Patents

27. **THIS ACTION IS MADE FINAL**. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

28. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert M Stevens whose telephone number is (571) 272-4102. The examiner can normally be reached on M-F 6:00 - 2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather R. Herndon can be reached on (571) 272-4136. The current fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Additionally, the main number for Technology Center 2100 is (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Robert M. Stevens
Reg. No. 47,972
Art Unit 2176
Date: July 22, 2005

rms

William L. Bashore
WILLIAM BASHORE
PRIMARY EXAMINER
7/10/2005
12